

CLUSTAL 2.0.12 multiple sequence alignment

SIN2 -----
 SIN4 MRGGASSGPQRWGSAGTTPRSLSTGSSPRGSDD--RSSDDGEELVEVTLDLQDDDTIVLR 58
 SIN6 MRGLPGHERR-WTSDTVSSDKDFSGELSPGADSGYNSGFASEEFVEVTLDLQDDDTIILR 59
 SIN8 MRGLPGHERR-WTSDTVSSGKDLSGESSPGTDSGNISGFASEEFVEVILDLQDDDTIILR 59
 SIN10 MRGLPGHERR-WTSDTVSSGKDLSGESSPGTDSGNISGFASEEFVEVILDLQDDDTIILR 59
 SIN12 MKPFSKNDRRRWSFDSVAGKTAVGSASTSPGT-EYSINGDQEJVBTIDLQDDDTIVLR 59
 SIN14 -----MKMRRGNSSNDHELGILRGANSDTNSDTESTIASDRGAFSGPLGRP--KR 47
 SIN16 -----MQ--NSENHHPH-----HQHHHSDETEIIGNDRASYSGPLSGPLNKR 39
 SIN18 -----
 SIN20 -----MSRVSFEVS-----GGYHSDAEAGNS--GPMGGQLPPIYKK 35
 SIN22 -----MMNRSEMOKLGFEHVRYYT--ESPYNRG 26

SIN2 -----
 SIN4 SVEPAAAAAAAG----VGAGAGAAASARGEL/TGGPSSSSRSRSPSIIRRSS-SHRLLQFSQ 112
 SIN6 SVEPATVINIDAPDLPAGVGIVSIE---TPTSAV-VSESRSPTIIRRSS-SSKLRQFSQ 114
 SIN8 SVEPATVINIDASDPATGVGIGGVISIE---TPASLTSTSGTRSPTMRRST-SNKLRQFSQ 115
 SIN10 SVEPATVINIDGSDPASGVGIGGASIE---TPASVTSTSETRSPMMRRST-SNKFRQFSQ 115
 SIN12 SVEPATAINV-----IGDISDD-NTGIMTPVISRSPTMKRTS-SNRFRQFSQ 105
 SIN14 ASKKNARF--ADDLPKRSNSVAGGRGD---DDEYVEITLDIIRDDSVAVHS-VQQAAGGGG 101
 SIN16 GGKKSARFNIPESTDIGTSVGTGGKSN---DDAYVEITLDVREDSVAVHS-VKTAGG--D 93
 SIN18 -----MASPYDHQSPHAQHPSGLPRPPGAGA 26
 SIN20 PG--NSRF-----TAENSQRTR---TAPYVDLTVDVQDDTVSVHS-LKMEGGS-S 78
 SIN22 ESSANVAT-----TSNYYGE---DEPYVEITLDIHDDSVSYG-LKSPNHRGA 70

SIN2 -----
 SIN4 ELKAEAMARARQFSQDLT---KRGFRSH-----SRSEAQAPSG-LESAL--A 153
 SIN6 ELKAEAVAKARQFSQELKAELRRFSWSHGHASRAFPSPSSFFQNAVVTGNG-VDSAL--A 171
 SIN8 ELKAEAVAKAKHFSQELKAELRRFSWSHGHASRTFSPASFFQNAVVTGNG-VDSAL--A 172
 SIN10 ELKAEAVAKAKHFSQELKAELRRFSWSHGHASRAFPSPASFFQNAVVTGNG-VDSAL--A 172
 SIN12 ELKAEAVAKAKQLSQELK---RFSWSRSFSG-NLTTSTAANQSGGAGGGLVNSAL--E 158
 SIN14 HLEDPPELALLTKKTLESSLNNTTSLSFFRS-----TSSRIKNASRELRRVF--S 148
 SIN16 DVEDPELALLAKG-LEK--KSTLGSSLVRN-----ASSRIRQVSQELRRLA--S 137
 SIN18 GAAAGGFARGLMKQPSR-----LASGVROFASRVSMKVPEG 62
 SIN20 VEESPELTLLKRNRLKEK---KTTVVVKRLAS-----VSHELKRLTSVSGGIG--G 122
 SIN22 GSNEYEDQSLLRQGRSGR--SNSVLKLASS-----VSTGITRVASSVSSSS-A 115

SIN2 -----
 SIN4 ARAARRQRAOLDRTSGAHKALRGLRFISSNKA-NNAWMEVQANFDRLAR--DGYLSRSD 210
 SIN6 ARALRRQRAOLDRTSSAHRALRRLKFISNNK--TNGWNEVENNFSKLAK--DGYLYRSD 227
 SIN8 ARALRRQRAOLDRTSSAHKALRGLKFISNNK--TNGWNEVENNFAKLAK--DGYLYRSD 228
 SIN10 ARALRRQRAOLDRTSSAHKALRGLKFISNNK--TNGWNEVENNFAKLAK--DGYLYRSD 228
 SIN12 ARALRKQRAOLDRTSSAQRALRGLRFISNKQKNVDGWNDVQSNFEKFEK--NGYIYRSD 216
 SIN14 RRSPSPAVR-RFDRTSSAAIHALKGLKFIATKT---AAWPADVQRFDKLSADSNGLLLSAK 204
 SIN16 LNKRIPIPTGRFDRNKSAAAHLALKGLKFISKTDG-GAGWAAVEKRFDEITASTTGLLPRAK 196
 SIN18 VGGMRPGGGRMTRMQSSAQVGLRGLRFLDKTSGGKEGWKSVERRFDEMNR--NGRLPKES 120
 SIN20 RK--PPRPAKLDRTKSAASQALKGLKFISKTDG-GAGWSAVEKRFNQITATTGGLLLRTK 179
 SIN22 RKPPRPQLAKLRRSKSRAELALKGLKFITKTDG-VTGWPEVEKRFYVMTMTNNGLLHRSR 174

SEQ ID NO: 25

SIN2 -----
 SIN4 FAECIG-----MTESKEFALELFDTLSRRRQMK-VDTIN 243
 SIN6 FAQCIG-----MKDSKEFALELFDALSRRLK-VDKIS 260
 SIN8 FAQCIG-----MKDSKEFALELFDALSRRLK-VDKIS 261
 SIN10 FAQCIGQYSRRRSLQFNYRLITLILINYLVKGMDSKFALELFDALSRRLK-VDKIS 287

SIN12	FAQCIG-----	MKDSKEFALELFDALSRRLK-VEKIN 249
SIN14	FWECLG-----	MNKESKDFADQLFRALARRNNVS-GDAIT 238
SIN16	FGEClG-----	MNKESKFAVELYDALARRNIT-TDSIN 230
SIN18	FGKCIG-----	MGDSKEFAGELFVALARRNLPEPDGIT 154
SIN20	FGEClG-----	MT--SKDFALELFDALARRNIT-GEVID 211
SIN22	FGEClG-----	MK--STEFALALFDALARRENVS-GDSIN 206

SIN2	-----	
SIN4	KDELREIWWQQTIDNSFDSRLQIFFEMVDKNADGRITEAEVKEIIMLSASANKLSRLKEQA	303
SIN6	KEELYEYWSQITDQSFDSRLQISFFDMVKNEDGRIAEEEVKEIIMLSASANKLSRLKEQA	320
SIN8	KEELYEYWSQITDQSFDSRLQIFFDMVKNEDGRIGEEEVKEIIMLSASANKLSRLKEQA	321
SIN10	QEELYEYWSQITDQSFDSRLQIFFDMVKNEDGRIGEEEVKEIIMLSASANKLSRLKEQA	347
SIN12	HDELYEYWSQINDESFDSDLQIFFDIVDKNEDGRITEEEVKEIIMLSASANKLSRLKEQA	309
SIN14	KEQLRIFWEQISDESFDAKLQVFFDMVKDDEGRVTEEEVAEIIISLASANKLSNIQKQA	298
SIN16	KAQLKEFWDQVADQSFDSRLQTFDMVKDADGRITEEEVREIIGLSASANRLSTIQKQA	290
SIN18	KEQLKEFWEEMTDQNFDSDLRIRFFDMCDKNGDGMLTEDEVKEVIILSASANKLAKLGHA	214
SIN20	GDQLKEFWEQINDQSFDSRLKTFFDMVKDADGRLTEDEVREL-----	254
SIN22	MNELKEFWKQITDQDFDSRLRTFFAMVDKDSDGRLNEAEVREIITLSASANLDNIRQA	266

SEQ ID NO: 26SEQ ID NO: 27

SIN2	-----	
SIN4	EEYAALIMEELDPEGLGYIELWQLETLLLQK--DTYMNYSQALSYTSQALSQLAGLRKK	361
SIN6	EEYAALIMEELDPERLGYIELWQLETLLLQK--DTYLNYSQALSYTSQALSQLHCLRKK	378
SIN8	EEYAALIMEELDPERLGYIELWQLETLLLQK--DTYLNYSQALSYTSQALSQLQGLRKR	379
SIN10	EEYAALIMEELDPERLGYIELWQLETLLLQK--DTYLNYSQALSYTSQALSQLQGLRGK	405
SIN12	EEYAALIMEELDPERLGYIELWQLETLLLQK--DTYLNYSQALSYTSQALSQLQGLRGK	367
SIN14	KEYAALIMEELDPDNAGFIMIENLEMQLQAPNQSVRMG--DSRILSQMLSQKLRAKES	356
SIN16	DEYAAMIMEELDPNNLGYIMIENLEMQLQAPNQSVQRGG-ESRNLSQMLSQKLKHTQER	349
SIN18	ATYASLIMEELDPDDRGYIEIWQLETLLRG--VSAQAAPEKMRTSSLARTMIPSRYR	272
SIN20	-----ESLETLLLQAATQSVITSTGERKNLSHMMSQRLKPTFNR	293
SIN22	DEYAALIMEELDPYHYGYIMIENLEMQLQAPMQDVRDG--ESKKLSKMLSQNLMPQSR	324

SEQ ID NO: 28

SIN2	-----	
SIN4	SSIRKISTSLSYYFEDNWKRLWVLALWIGIMAGLFTWKFMQYRNRYVFDVMGYCVTTAKG	421
SIN6	SPIKRMSTKLVYSLQENWKRIWVLTLWILIMIGLFLWKFYQYKNKSAFRVMGYCLVTAKG	438
SIN8	SPIRRMSTKLVYSLQENWKRIWVLWLWILIMIGLFLWKFYLYKQKSAFQVMGYCLLTAKG	439
SIN10	SPIRRMSTKLVYSLQENWKRIWVLWLWILIMIGLFLWKFYQYKQKSAFQVMGYCLLTAKG	465
SIN12	SRIHRMSSDFVYIMQENWKRIWVLWLSLWIMIMIGLFLWKFFQYKQKDAFHVMGYCLLTAKG	427
SIN14	NPLLRWSEKIKYFILDNWQRLWIMMLWLGCICGLFTYKFIQYKNKAAAGVMGYCVCVAKG	416
SIN16	NPIVRWYKSFMYFLLDNWQRVWLLLWIGIMAGLFTWKYIQYKEKAAYKVMGPCVCFAKG	409
SIN18	SPLKRHSRTVDFVHENWKRIWVLVALWLAVNVGLFAYKFEQYERRAAFQVMCHCVCVAKG	332
SIN20	NPLKRWYRGLRFLLDNWQRCWVIVLWFIVMAILFTYKYIQYRRSPVYPVMCDCVCMAKG	353
SIN22	NLGARFCRGMKYFLFDNWKRVWVMAWIGAMAGLFTWKFMMEYRKRSAYEVMGVCVIAKG	384

SIN2	-----	
SIN4	AAETLKLNMAIILLPVCRNTITWLR-STRAARALPFDDNINFHKTIAAAIVVGIIHLHGN	480
SIN6	AAETLKFNMALILLPVCRNTITWLR-STKLSHFVPFDDNINFHKTVAAAIVTGIIHLHGN	497
SIN8	AAETLKFNMALILLPVCRNTITFLR-STKLSFCVPFDDNINFHKTVAAAIVTGIIHLHGN	498
SIN10	AAETLKFNMALILLPVCRNTITFLR-STKLSFCVPFDDNINFHKTVAAAIVTGIIHLHGN	524
SIN12	AAETLKFNMALILFPVCRNTITWLR-STRLSYFVPFDDNINFHKTIAGAIIVVAVILHG	486
SIN14	GAETLKFNMALILLPVCRNTITWLRNKTKLGTVVPFDDSLNFHKVIASGIVVGVLHAGA	476
SIN16	AAETLKLNMAIILFPVCRNTITWLRNKTTRLGAAVPFDDNLNFHKVIAVAILGVGIHGLS	469
SIN18	AAEVLKLNMAIILLPVCRNTLTTLR-STALSHVIPFDDNINFHKVIAATIAATAVHTLA	391
SIN20	AAETVKLNMAIILLPVCRNTITWLRNKTTRLGRRVPFDDNLNFHKVIAVGIIVGVTMHAGA	413
SIN22	AAETLKLNMAIILLPVCRNTITWLRKTKLSAIVPFDDSLNFHKVIAIGISVGVGIHATS	444

SEQ ID NO: 29

SIN2 -----
 SIN4 HLVCDFPRLIKSSDEKYAP-LGQYFGE-IKPTYFTLVKGVEGITGVIMVVCMIIAFTLAT 538
 SIN6 HLVCDFPRLIHADDQDYQSFLSNDFGQ-SKPQYIDLVKGVEGVTGIIMVILMAIAFTLAT 556
 SIN8 HLVCDFPKLIHANNTNYQKYLVNDFGP-SQPQYIDLVKGVEGVTGIIMVILMAIAFTLAT 557
 SIN10 HLVCDFPKLIHANSTNYQKYLVNDFGP-SQPQYIDLVKGVEGVTGIVMVILMAIAFTLAT 583
 SIN12 HLACDFPRIVRATEYDYNRYLFHYQT-KQPTYFDLVKGPEGITGILMVILMIIISFTLAT 545
 SIN14 HLTCDFPRLIAADEDTYPE-MEKYFGD-QPTSYWWFVKGVEGWTGIVMVVLMAIAFTLAT 534
 SIN16 HLTCDFPRLLNASEEEYPE-MKYYFGD-QPESYWWFIKGVEGVTGIIMVVLMAIAFTLAT 527
 SIN18 HVTCDFPRLINCPSDKFMATLGPNGFY-RQPTYADLLESAPGVTGILMIIIMSFSFTLAT 450
 SIN20 HLACDFPRLIADQYEP-MEKYFGP-QTKRYLDFVQSVEGVTGIMVLLMAIAFTLAT 472
 SIN22 HLACDFPRLIAADEDQYEP-MEKYFGP-QTKRYLDFVQSVEGVTGIMVLLMAIAFTLAT 502

SIN2 -----
 SIN4 RWFRRLSLVK-LPRPFDKLTGFNAFWYSHHLFIVYIALIVHGECLYLIHV-WYRRTTW-M 595
 SIN6 RWFRRLSIK-LPKPFDRLTGFNAFWYSHLLVIVYILLIIGHTFLFLVHK-WYSKTTW-M 613
 SIN8 RWFRRLSIK-FPKPFDRLTGFNAFWYSHLLIIVYIVLIIIGHTFLFLVHN-WYSKTTW-M 614
 SIN10 RWFRRLSIK-LPKPFDRLTGFNAFWYSHLLIIVYIVLIIIGHTFLFLVHN-WYSKTTW-M 640
 SIN12 RWFRRNLLVK-LPKPFDRLTGFNAFWYSHHLFIVYIVLILHGIFLYFAKP-WYVRTTW-M 602
 SIN14 PWFRRNKLN-LPNFLKKLTGFNAFWYSHHLFIVYIVLILHGIFLYFAKP-WYQKTTW-M 591
 SIN16 PWFRRNRVS-LPKPFHKLGTGXNAFWYSHHLFIVYIVTLFIVHGEKLYITKD-WYKRTDMDV 585
 SIN18 HSFRRSVVK-LPSPLHHLAGFNAFWYAHLLVLAYVLLVHSYFIFLTRE-WYKKTTW-M 507
 SIN20 PWFRRGKLNYLPGPLKKLASFNAFWYTHHLFIVYIVLVAHGYYLTRLD-WHNKTTW-M 530
 SIN22 TWFRRNKLN-LPCPLKKITGFNAFWYSHHLFIVVYSLVVHGFYVYLIIEPWYKKTTW-M 560

SIN2 -----
 SIN4 YLSVPVCLYGERILRFFRSGSYSVRLLKVAIYPGNVLTLQMSKPPTFRYKSGQYMFVQC 655
 SIN6 YLAVPVLLYAGERTLRFFRSGLYTVRLLKVAIYPGNVLTLQMSKPQFRYKSGQYMFVQC 673
 SIN8 YLAVPVLLYAGERTLRFFRSGLYSVRLLKVAIYPGNVLTLQMSKPQFRYKSGQYMFVQC 674
 SIN10 YIAVPVLLYAGERTLRFFRSGLYSVRLLKVAIYPGNVLTLQMSKPQFRYKSGQYMFVQC 700
 SIN12 YLAVPVLLYGGERTLRYFRSGSYSVRLLKVAIYPGNVLTLQMSKPQFRYKSGQYMFVQC 662
 SIN14 YLAVPILLYASERLLRAFRSSIKPVKMIKVAVYPGNVLSLIMTQPQFKYKSGQFMLVNC 651
 SIN16 LLTIPILLYASERLIRAFRSSIKAVKILKAVAVYPGNVLALHMSKPQGYKYKSGQYMFVNC 645
 SIN18 YLIVPVLFYACERTIRKRENNYRVSIVKAAIYPGNVLSLHMKKPPGFKYKSGMYLFVKC 567
 SIN20 YLVPVVLVYACERLIRAFRSSIKAVTIRKAVAVYPGNVLAIHLSRPQNFKYKSGQYMFVNC 590
 SIN22 YLMVPVVLYLCERLIRAFRSSVEAVSVLKAVLPGNVLSLHLSRPSNFRYKSGQYMYLNC 620

SIN2 -----
 SIN4 PAVSPFEWHPSITSAPGDDYLSIHVRQLGDWTRELKRVFAAACCEPPAGGKSG-LLRAD- 713
 SIN6 PAVSPFEWHPSITSAPGDDYLSIHRLQGDWTQELKRVFSEACERPEAGKSG-LLRAD- 731
 SIN8 PAVSPFEWHPSITSAPGDDYLSIHRLQGDWTQELKRVFSEACEQPEAGKSG-LLRAD- 732
 SIN10 PAVSPFEWHPSITSAPGDDYLSIHRLQGDWTQELKRVFSEACEQPEAGKSG-LLRAD- 758
 SIN12 PAVSPFEWHPSITSAPEDDYISIHRLQGDWTQELKRVFSEVCEPPVGGKSG-LLRAD- 720
 SIN14 RAVSPFEWHPSITSAPGDDYLSVHIRTLDWTRKLRTVFSEVCKPPTAGKSG-LLRAD- 709
 SIN16 AAVSPFEWHPSITSAPGDDYLSVHIRTLDWTRQLKTVFSEVCQPPPNGKSG-LLRADY 704
 SIN18 PDVSPFEWHPSITSAPGDDYLSVHIRTLDWTRQLKTVFSEVCQPPPNGKSG-LLRADY 627
 SIN20 AAVSPFEWHPSITSAPQDDYLSVHIRTLDWTRALKGVFSEVCKPPPAGVSG-LLRADM 649
 SIN22 SAVSTLEWHPSITSAPGDDYLSVHIRTLDWTRALKGVFSEVCKPPPDEHR-LNRADS 679

SEQ ID NO: 30 SEQ ID NO: 31

SIN2 -----
 SIN4 ETTKKILPKLLIDGPYGSQAQDYSKYDVLLVGLGIGATPFISILKDLNNIIK 767
 SIN6 ENTKKSLPKLLIDGPYGAPAQDYRKYDVLLVGLGIGATPFISILKDLNVNIK 785
 SIN8 ENTKTSLPKLLIDGPYGAPAQDYRKYDVLLVGLGIGATPFISILKDLKNIVT 786
 SIN10 ENTKTSLPKLLIDGPYGAPAQDYRKYDVLLVGLGIGATPFISILKDLKNIVA 812
 SIN12 ETTKKSLPKLLIDGPYGAPAQDYRKYDVLLVGLGIGATPFISILKDLNNIVK 774
 SIN14 GGDGNLPFPKVLIDGPYGAPAQDYKKYDVLLVGLGIGATPMISILKDIINNMKG 764
 SIN16 LQGENNPFPKVLIDGPYGAPAQDYKKYEVVLLVGLGIGATPMISIVKDIVNNMKA 760

SIN18 TVVADAQTEDTRFPKVLIDGPyGAPAQNYYKKYDILLIGLGIGATPFISILKDLLNNIKS 687
 SIN20 ----LHGANNPDFPKVLIDGPyGAPAQDYKKYEVVLLVGLGIGATPMISIVKDIVNNIKA 705
 SIN22 ----KHWDYIPDFPRILIDGPyGAPAQDYKKFEVLLVGLGIGATPMISIVSDIINNLKG 735

SEQ ID NO: 32

SEQ ID NO: 33

SIN2 -----
 SIN4 MEEEEDASTDLYPPMGRNKPHVDLGLMTI-TSRPK--KILKTTNAYFYWVTREQGSFDW 824
 SIN6 MEEQADLASDFSGNSDMSVATSEQPALNKISLKRRK--STLRTTNAYFYWVTREQGSFDW 843
 SIN8 MEEQADLVSDFSGNSDMSAATSEQPALNKISPKKRK--STLKTTNAYFYWVTREQGSFDW 844
 SIN10 MEEQADLVSDFSGNSDMSAATSEQPALNKISPKKRK--STLKTTNAYFYWVTREQGSFDW 870
 SIN12 MEEHADSISDFRSRSSEYSTGSNGD-----TPRRK--RILKTTNAYFYWVTREQGSFDW 825
 SIN14 PDRDS----DIENNNSNNS-----KG-----FKTRKAYFYWVTREQGSFEW 802
 SIN16 MDEEENSLEDGHNNNMAPNSSPNIAKNKGKNSGSASGGNNFNTRRAYFYWVTREQGSFDW 820
 SIN18 NEEVESIHGEIGSFKNNGPG-----RAYFYWVTREQGSFEW 724
 SIN20 KEQAQLN--RMENGTSPEQRS-----KKES-----FRTRRAYFYWVTREQGSFDW 748
 SIN22 VEEGSNRRQSPHIHMVTPPVSPS---RKSE-----TFRTKRAYFYWVTREQGSFDW 783

SEQ ID NO: 34

SIN2 FKGIMNEIAELDQRNIIEMHNYLTsvYEEGDARSALITMLQALNHAKNGVDVVSXTRVRT 60
 SIN4 FKGVMNEIADLDQRNIIEMHNYLTsvYEEGDARSALITMLQALNHAKNGVDIVSGTKVRT 884
 SIN6 FKGVMNEVAELDQRGVIEMHNYLTsvYEEGDARSALITMVQALNHAKNGVDIVSGTRVRT 903
 SIN8 FKGVMNEVAELDQRGVIEMHNYLTsvYEEGDARSALITMVQALNHAKNGVDIVSGTSVRT 904
 SIN10 FKGVMNEVAELDQRGVIEMHNYLTsvYEEGDARSALITMVQALNHAKNGVDIVSGTRVRT 930
 SIN12 FKGVMNEVAELDQRGVIEMHNYLTsvYEEGDARSALITMVQALNHAKNGVDIVSGTRVRT 885
 SIN14 FKGIMDEISELDEEGIIIELHNYCTSVYEEGDARSALITMLQSLQHAKNGVDVVGTRVKS 862
 SIN16 FKGIMNEAAEMDHKGVIEMHNYCTSVYEEGDARSALITMLQSLHHAKNGVDIVSGTRVKS 880
 SIN18 FKGVMNDVAESDHNNIIEMHNYLTsvYEEGDARSALIAMVQSLQHAKNGVDIVSGSRIRT 784
 SIN20 FKNIMNEVAERDANRVIEMHNYCTSVYEEGDARSALIAMLQSLNHAKNGVDIVSGTRVMS 808
 SIN22 FKNVMDEVETEDRKNVIELHNYCTSVYEEGDARSALITMLQSLNHAHKGVDVVGTRVMS 843
 :: : * . :*:*** ***** * *** * :*:***:***:***:*** : : :

SIN2 HFARPNFKRVLSKVAAKHPYAKIGVFYCGAPVLAQELSNCHEFNGKCTTKF----- 112
 SIN4 HFARPNWRKVLSKISSKHPYAKIGVFYCGAPVLAQELSKLCHEFNGKCTTKFEGHKHF 943
 SIN6 HFARPNWKKVFSKTLTKHANARIGVFYCGAPVLAKELSKLCKEYNQKGATKFEGHKHF 962
 SIN8 HFARPNWRKVFSKTLTKHANARIGVFYCGAPILAKELSKLCFQNQKGTTKFEGHKHF 963
 SIN10 HFARPNWRKVFSKTLTKHANARIGVFYCGAPILAKELSQLCKEFNQKGTTKFEGHKHF 989
 SIN12 HFARPNWKKVLTKLSSKHCNARTGVFVYCGVPVLGKELSKLCNTFNQKGSTKFEGHKHF 944
 SIN14 HFAKPNWRQVYKKIAVQHPGKRIGVFYCGMPGMIKELKNLALDFSRKTTKFDFHKENF 921
 SIN16 HFAKPNWRNVYKRIALNHPEAKGVFVYCGAPALTKELRQHALDFSHKTSTKFDHKENF 939
 SIN18 HFARPNWRKVFSDLANAHKNSRIGVFYCGSPTLTQLKDLSKEFSQTTTRFHFKENF 843
 SIN20 HFAKPNWRNVYKRIAMDHPNTRKVGVFYCGAPALTKELRHLALDFTHKTSTRFSFHKENF 867
 SIN22 HFARPNWRSVFKRIAVNHPKTRGVGVFVYCGAAGLVKELRHLSLDFSHKTSTKIFHKENF 902

:: * . * : ***** . : :* . . . :*:*

SEQ ID NO: 35

Table summarizing the degree of sequence identity between SEQ ID NO: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, and 22. The sequence alignment is performed using CLUSTALW program with the default parameters.

SEQ ID NO	2	4	6	8	10	12	14	16	18	20	22
2	-	-	-	-	-	-	-	-	-	-	-
4	89	-	-	-	-	-	-	-	-	-	-
6	79	72	-	-	-	-	-	-	-	-	-
8	78	72	92	-	-	-	-	-	-	-	-
10	78	71	92	98	-	-	-	-	-	-	-
12	76	70	77	77	77	-	-	-	-	-	-
14	66	52	53	52	52	51	-	-	-	-	-
16	66	51	52	51	51	51	67	-	-	-	-
18	64	53	53	53	54	52	49	51	-	-	-
20	64	50	50	50	50	50	61	65	47	-	-
22	62	52	52	51	51	59	60	50	62	-	-